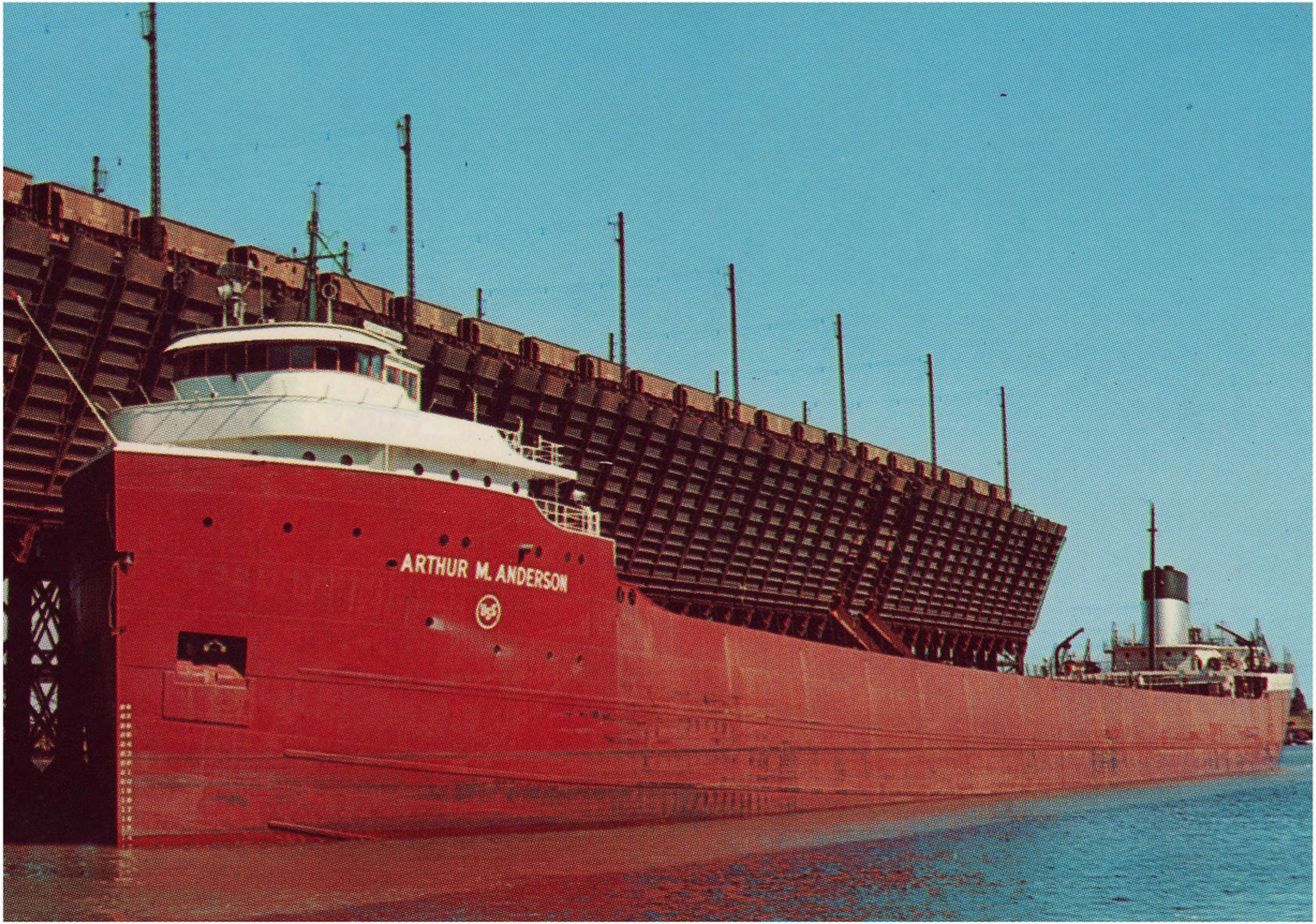
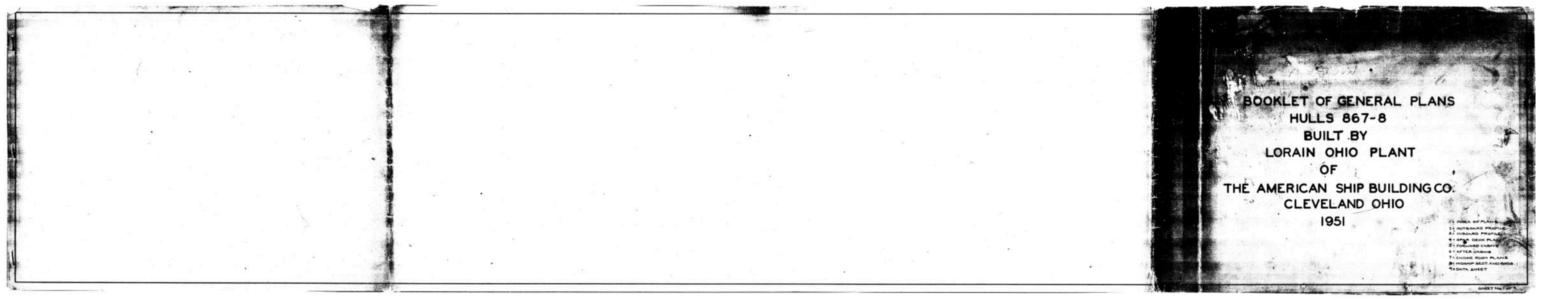

ARTHUR M. ANDERSON

ARTHUR M. ANDERSON

00 - cover photo

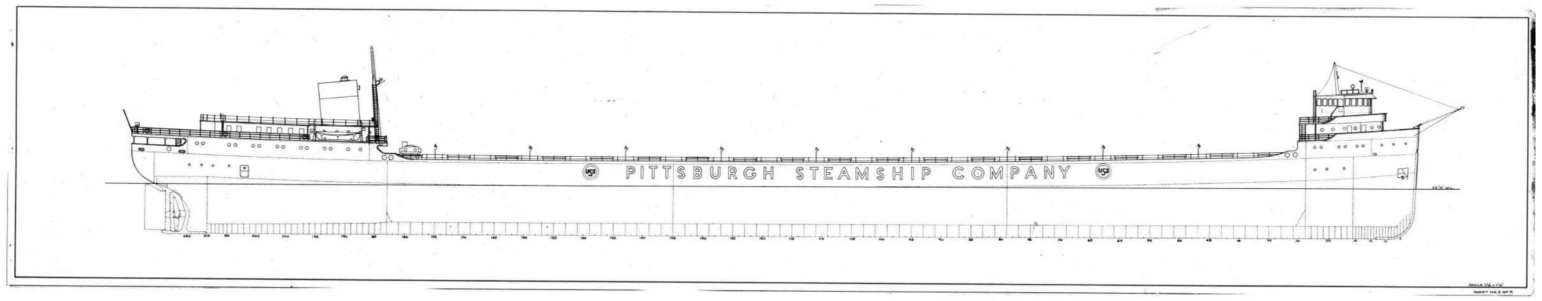


BOOKLET OF GENERAL PLANS
HULLS 867-8
BUILT BY
LORAIN OHIO PLANT
OF
THE AMERICAN SHIP BUILDING CO.
CLEVELAND OHIO
1951

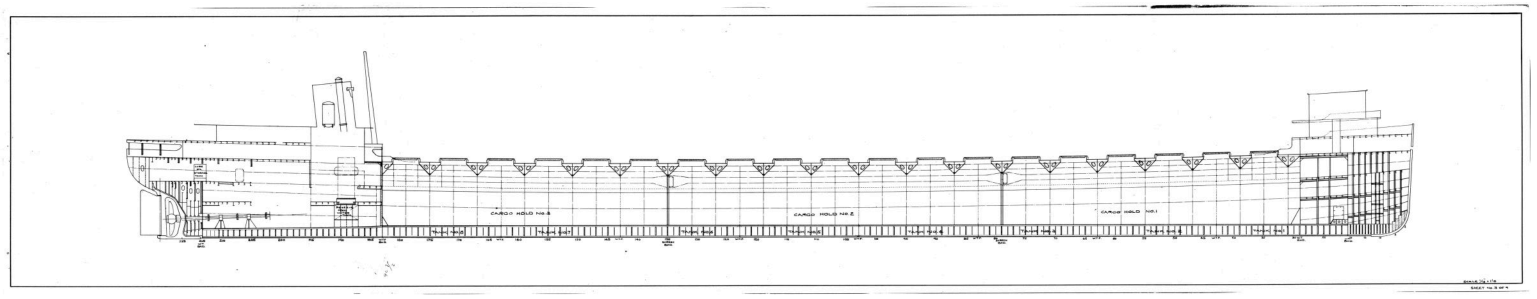
1 - INDEX OF PLANS
2 - OUTBOARD PROFILE
3 - INBOARD PROFILE
4 - SPAR DECK PLAN
5 - FORWARD CABINS
6 - AFTER CABINS
7 - ENGINE ROOM PLANS
8 - MIDSHIP SECT. AND BHDS.
9 - DATA SHEET

SHEET No. 1 OF 9

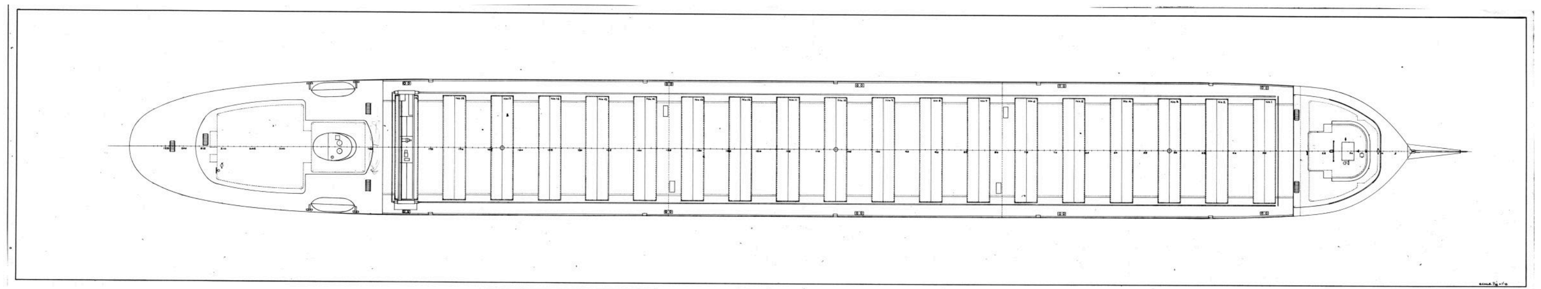
01 - index of plans


PITTSBURGH STEAMSHIP COMPANY

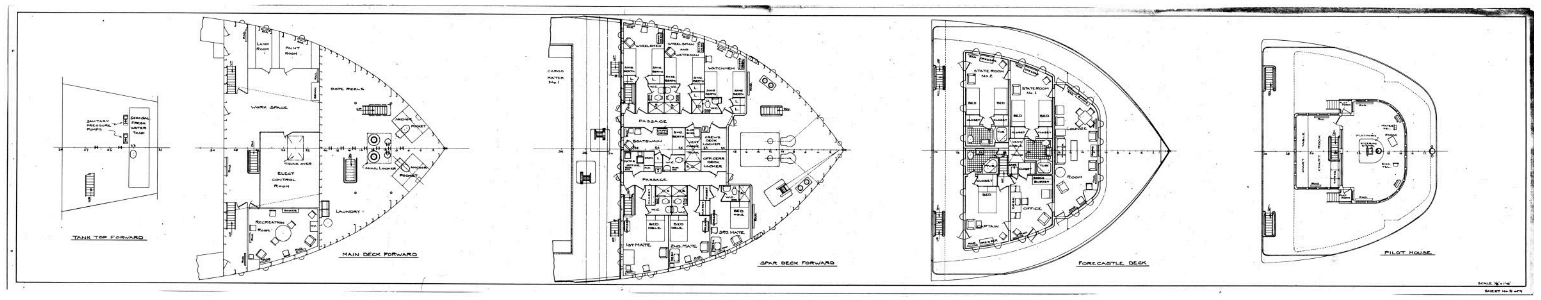
02 - outboard profile



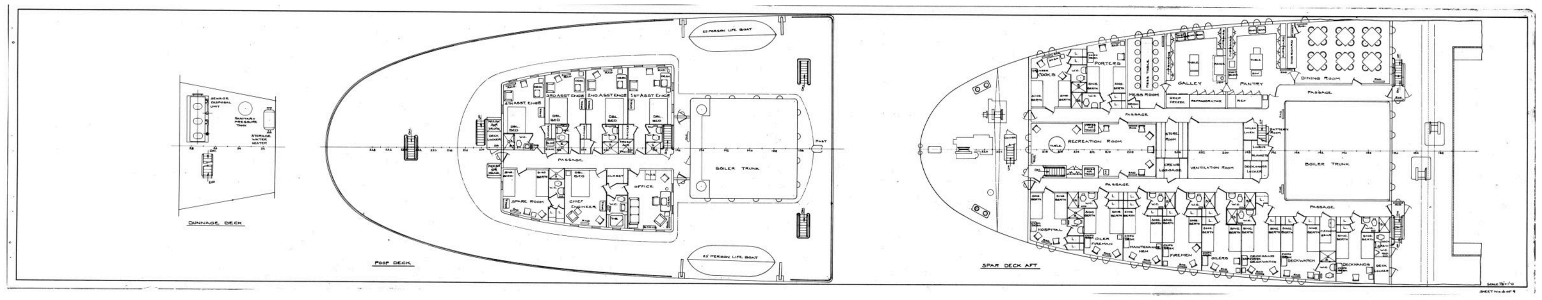
03 - inboard profile



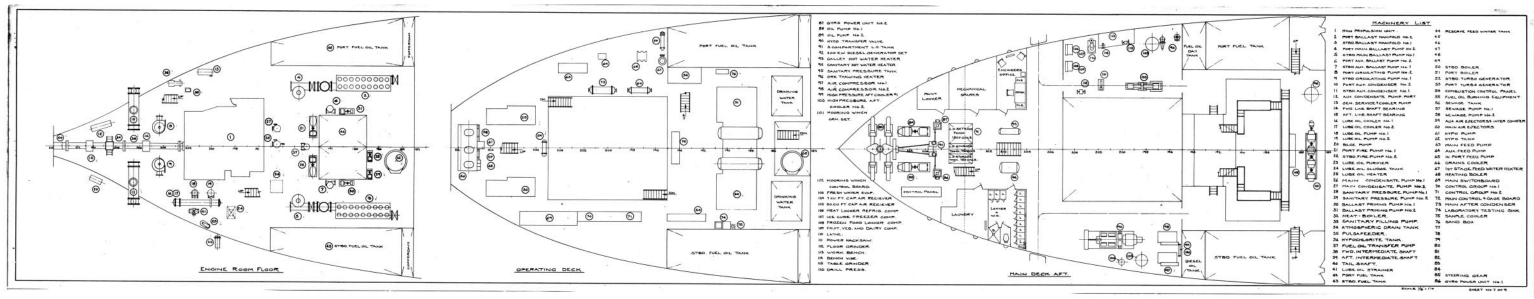
04 - spar deck


TANK TOP FORWARD
MAIN DECK FORWARD
SPAR DECK FORWARD
FORECASTLE DECK
PILOT HOUSE

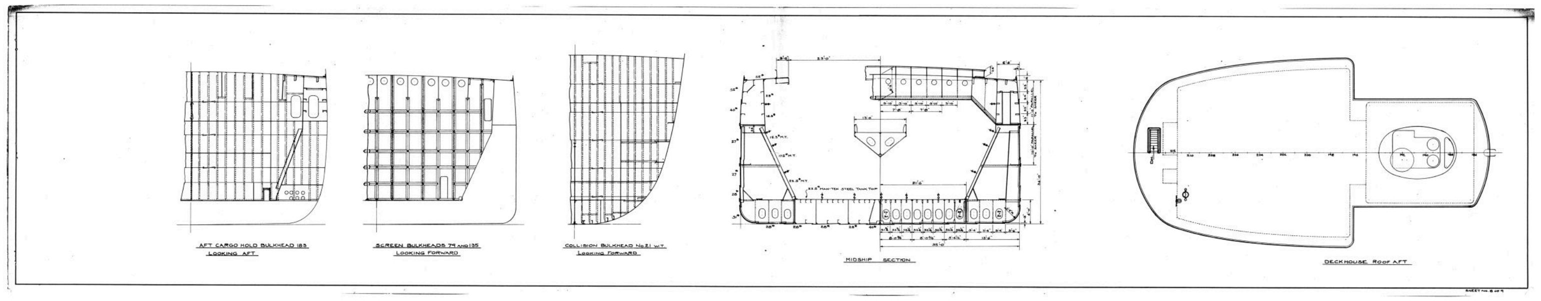
05 - forward cabins


DRAINAGE DECK
POOP DECK
SPAR DECK AFT
BOILER TRUNK

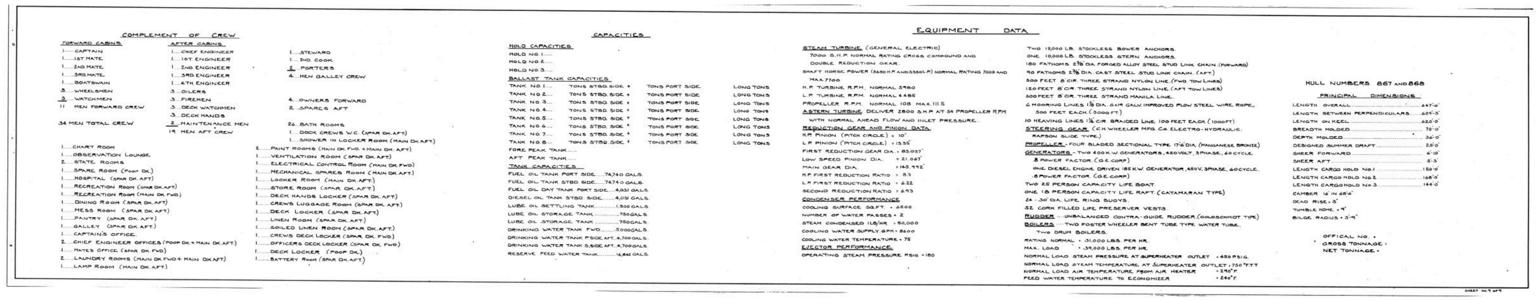
06 - after cabins


ENGINE ROOM FLOOR
OPERATING DECK
MAIN DECK AFT
MACHINERY LIST

07 - engine room


AFT CARGO HOLD BULKHEAD 183
LOOKING AFT
SCREEN BULKHEADS 79 AND 135
LOOKING FORWARD
COLLISION BULKHEAD No 21 W.T.
LOOKING FORWARD
22.5# MAN-TEN STEEL TANK TOP
21'-6"
35'-0"
MIDSHIP SECTION
DECKHOUSE ROOF AFT
SHEET No. 8 OF 9

08 - midship section & bulkheads



COMPLEMENT OF CREW

FORWARD CABINS

1 ...... CAPTAIN
1 ...... 1ST MATE
1 ...... 2ND MATE
1 ...... 3RD MATE
1 ...... BOATSWAIN
3 ...... WHEELSMEN
3 ...... WATCHMEN
11 MEN FORWARD CREW

34 MEN TOTAL CREW

AFTER CABINS

1 ...... CHIEF ENGINEER
1 ...... 1ST ENGINEER
1 ...... 2ND ENGINEER
1 ...... 3RD ENGINEER
1 ...... 4TH ENGINEER
3 ...... OILERS
3 ...... FIREMEN
3 ...... DECK WATCHMEN
3 ...... DECK HANDS
2 ...... MAINTENANCE MEN
19 MEN AFT CREW

1 ...... STEWARD
1 ...... 2ND. COOK
2 ...... PORTERS
4 ...... MEN GALLEY CREW

4 ...... OWNERS FORWARD
2 ...... SPARES AFT

26 ...... BATH ROOMS
1 ...... DOCK CREWS W.C. (SPAR DK. AFT.)
1 ...... SHOWER IN LOCKER ROOM (MAIN DK. AFT.)

1 ...... CHART ROOM
1 ...... OBSERVATION LOUNGE
2 ...... STATE ROOMS
1 ...... SPARE ROOM (POOP DK.)
1 ...... HOSPITAL (SPAR DK. AFT)
1 ...... RECREATION ROOM (SPAR DK. AFT.)
1 ...... RECREATION ROOM (MAIN DK. FWD.)
1 ...... DINING ROOM (SPAR DK. AFT)
1 ...... MESS ROOM (SPAR DK. AFT.)
1 ...... PANTRY (SPAR DK. AFT.)
1 ...... GALLEY (SPAR DK. AFT.)
1 ...... CAPTAIN'S OFFICE
2 ...... CHIEF ENGINEER OFFICES (POOP DK. + MAIN DK. AFT.)
1 ...... MATES OFFICE (SPAR DK. FWD.)
2 ...... LAUNDRY ROOMS (MAIN DK. FWD. + MAIN DK. AFT.)
1 ...... LAMP ROOM (MAIN DK. AFT.)

2 ...... PAINT ROOMS (MAIN DK. FWD. + MAIN DK. AFT.)
1 ...... VENTILATION ROOM (SPAR DK. AFT.)
1 ...... ELECTRICAL CONTROL ROOM (MAIN DK. FWD.)
1 ...... MECHANICAL SPARES ROOM (MAIN DK. AFT.)
1 ...... LOCKER ROOM (MAIN DK. AFT.)
1 ...... STORE ROOM (SPAR DK. AFT.)
1 ...... DECK HANDS LOCKER (SPAR DK. AFT.)
1 ...... CREWS LUGGAGE ROOM (SPAR DK. AFT.)
1 ...... DECK LOCKER (SPAR DK. AFT.)
1 ...... LINEN ROOM (SPAR DK. AFT.)
1 ...... SOILED LINEN ROOM (SPAR DK. AFT.)
1 ...... CREWS DECK LOCKER (SPAR DK. FWD.)
1 ...... OFFICERS DECK LOCKER (SPAR DK. FWD.)
1 ...... DECK LOCKER (POOP DK.)
1 ...... BATTERY ROOM (SPAR DK. AFT.)

CAPACITIES

HOLD CAPACITIES

HOLD NO. 1 ......
HOLD NO. 2 ......
HOLD NO. 3 ......

BALLAST TANK CAPACITIES

TANK NO. 1	TONS STBD. SIDE +	TONS PORT SIDE	LONG TONS
TANK NO. 2	TONS STBD. SIDE +	TONS PORT SIDE	LONG TONS
TANK NO. 3	TONS STBD. SIDE +	TONS PORT SIDE	LONG TONS
TANK NO. 4	TONS STBD. SIDE +	TONS PORT SIDE	LONG TONS
TANK NO. 5	TONS STBD. SIDE +	TONS PORT SIDE	LONG TONS
TANK NO. 6	TONS STBD. SIDE +	TONS PORT SIDE	LONG TONS
TANK NO. 7	TONS STBD. SIDE +	TONS PORT SIDE	LONG TONS
TANK NO. 8	TONS STBD. SIDE +	TONS PORT SIDE	LONG TONS

FORE PEAK TANK ......
AFT PEAK TANK ......

TANK CAPACITIES

FUEL OIL TANK PORT SIDE ...... 74,740 GALS.
FUEL OIL TANK STBD. SIDE ...... 74,740 GALS.
FUEL OIL DAY TANK PORT SIDE ...... 4,031 GALS.
DIESEL OIL TANK STBD. SIDE ...... 4,031 GALS.
LUBE OIL SETTLING TANK ...... 1,500 GALS.
LUBE OIL STORAGE TANK ...... 750 GALS.
LUBE OIL STORAGE TANK ...... 750 GALS.
DRINKING WATER TANK FWD. ...... 5,000 GALS.
DRINKING WATER TANK P. SIDE AFT ...... 4,700 GALS.
DRINKING WATER TANK S. SIDE AFT ...... 4,700 GALS.
RESERVE FEED WATER TANK ...... 16,845 GALS.

EQUIPMENT DATA

STEAM TURBINE (GENERAL ELECTRIC)
7000 S.H.P. NORMAL RATING CROSS COMPOUND AND DOUBLE REDUCTION GEAR.
SHAFT HORSE POWER (3650 H.P. AND 3350 L.P.) NORMAL RATING 7000 AND MAX. 7700
H.P. TURBINE R.P.M. NORMAL 5980
L.P. TURBINE R.P.M. NORMAL 4485
PROPELLER R.P.M. NORMAL 108 MAX. 111.5
ASTERN TURBINE DELIVER 2800 S.H.P. AT 54 PROPELLER R.P.M WITH NORMAL AHEAD FLOW AND INLET PRESSURE.
REDUCTION GEAR AND PINION DATA.
H.P. PINION (PITCH CIRCLE) = 10"
L.P. PINION (PITCH CIRCLE) = 13.35"
FIRST REDUCTION GEAR DIA. = 83.037"
LOW SPEED PINION DIA. = 21.067"
MAIN GEAR DIA. = 145.992"
H.P. FIRST REDUCTION RATIO = 8.3
L.P. FIRST REDUCTION RATIO = 6.22
SECOND REDUCTION RATIO = 6.93
CONDENSER PERFORMANCE
COOLING SURFACE SQ.FT. = 6500
NUMBER OF WATER PASSES = 2
STEAM CONDENSED 1LB/HR = 50,000
COOLING WATER SUPPLY G.P.M. = 8600
COOLING WATER TEMPERATURE = 75
EJECTOR PERFORMANCE
OPERATING STEAM PRESSURE P.SIG = 180

TWO 12,000 LB. STOCKLESS BOWER ANCHORS.
ONE 10,000 LB. STOCKLESS STERN ANCHORS.
180 FATHOMS 2 3/8" DIA. FORGED ALLOY STEEL STUD LINK CHAIN. (FORWARD)
90 FATHOMS 2 3/8" DIA. CAST STEEL STUD LINK CHAIN. (AFT.)
300 FEET 8" CIR. THREE STRAND NYLON LINE. (FWD. TOW LINES)
120 FEET 8" CIR. THREE STRAND NYLON LINE. (AFT TOW LINES)
300 FEET 8" CIR. THREE STRAND MANILA LINE.
6 MOORING LINES 1 1/8" DIA. 6x19 GALV. IMPROVED PLOW STEEL WIRE ROPE, 500 FEET EACH. (3000 FT.)
10 HEAVING LINES 1 1/4" CIR. BRAIDED LINE 100 FEET EACH. (1000 FT.)
STEERING GEAR (C.H. WHEELER MFG. Co. ELECTRO-HYDRAULIC, RAPSON SLIDE TYPE.)
PROPELLER - FOUR BLADED SECTIONAL TYPE 17'-6" DIA. (MANGANESE BRONZE)
GENERATORS - TWO 400 K.W. GENERATORS, 450 VOLT, 3 PHASE, 60 CYCLE, .8 POWER FACTOR. (G.E. CORP.)
ONE DIESEL ENGINE DRIVEN 185 K.W. GENERATOR, 450V, 3 PHASE, 60 CYCLE, .8 POWER FACTOR. (G.E. CORP.)
TWO 25 PERSON CAPACITY LIFE BOAT.
ONE 18 PERSON CAPACITY LIFE RAFT. (CATAMARAN TYPE)
24 - 30" DIA. LIFE RING BUOYS.
52 CORK FILLED LIFE PRESERVER VESTS.
RUDDER ..... UNBALANCED CONTRA-GUIDE RUDDER. (GOLDSCHMIDT TYPE)
BOILERS ..... TWO FOSTER WHEELER BENT TUBE TYPE WATER TUBE, TWO DRUM BOILERS.
RATING NORMAL = 31,000 LBS. PER HR.
MAX. LOAD = 39,000 LBS. PER HR.
NORMAL LOAD STEAM PRESSURE AT SUPERHEATER OUTLET = 450 P.S.I.G.
NORMAL LOAD STEAM TEMPERATURE AT SUPERHEATER OUTLET = 750 °F.T.T
NORMAL LOAD AIR TEMPERATURE FROM AIR HEATER = 290° F.
FEED WATER TEMPERATURE TO ECONOMIZER = 240° F.

HULL NUMBERS 867 AND 868

PRINCIPAL DIMENSIONS

LENGTH OVERALL	647'-0"
LENGTH BETWEEN PERPENDICULARS	629'-3"
LENGTH ON KEEL	620'-0"
BREADTH MOLDED	70'-0"
DEPTH MOLDED	36'-0"
DESIGNED SUMMER DRAFT	25'-0"
SHEER FORWARD	6'-10"
SHEER AFT	5'-3"
LENGTH CARGO HOLD No. 1	150'-0"
LENGTH CARGO HOLD No. 2	168'-0"
LENGTH CARGO HOLD No. 3	144'-0"

CAMBER 16" IN 68'-6"
DEAD RISE = 3"
TUMBLE HOME = 9"
BILGE RADIUS = 3'-9"

OFFICAL NO. =
GROSS TONNAGE =
NET TONNAGE =

SHEET No. 9 OF 9

09 - data sheet